Amendments to Claims:

This listing of claims will replace all prior versions and listings in the application:

Listing of Claims:

- 1-88.(Canceled)
- 89. (Previously Presented) The composition according to claim 101, wherein the antigen is a microorganism.
 - 90. (Canceled)
- 91. (Previously Presented) The composition according to claim 89, wherein the antigen is a polypeptide.
- 92. (Previously Presented) The composition according to claim 89, wherein the antigen is a peptide.
 - 93. (Canceled)
- 94. (Previously Presented) The composition according to claim 101, wherein the antigen is a mycobacterium.
- 95. (Previously Presented) The composition according to claim 94, wherein the mycobacterium is BCG.
 - 96-98. (Canceled)
- 99. (Previously Presented) The pharmaceutical composition according to claim 116, wherein the antigen-activated dendritic cells express an amount of the fragmented antigen to provide between about 1 to 100 micrograms of the fragmented antigen in said pharmaceutical composition.
 - 100. (Canceled)
- 101. (Currently Amended) An *in vitro* composition comprising antigen-activated dendritic cells presenting fragmented antigen <u>and</u> derived from an *in vitro* culture of an enriched and expanded population of proliferating dendritic cell precursors by a method comprising:

providing a tissue source comprising dendritic cell precursors;

optionally treating the tissue source comprising dendritic cell precursors to increase the proportion of dendritic cell precursors;

culturing the tissue source on a substrate in a culture medium comprising GM-CSF to obtain cell clusters;

subculturing the cell clusters to produce cell aggregates comprising proliferating dendritic cell precursors; and

subculturing the cell aggregates at least one time to enrich the proportion of dendritic cell precursors;

wherein the dendritic cell precursors are cultured *in vitro* in the presence of an antigen for a time sufficient to allow the antigen to be fragmented and presented.

- 102. (Canceled)
- 103. (Previously Presented) The pharmaceutical composition according to claim 116, wherein the pharmaceutical composition comprises from about $1x10^6$ to $1x10^7$ antigen activated dendritic cells.
- 104. (Previously Presented) The composition according to claim 101, wherein the tissue source is blood.
- 105. (Previously Presented) The composition according to claim 101, wherein the tissue source is bone marrow.
- 106. (Previously Presented) The composition according to claim 101, wherein GM-CSF is present in the culture medium at a concentration of about 1-1000 U/ml.
- 107. (Previously Presented) The composition according to claim 104, wherein the concentration of GM-CSF in the culture medium is about 30-100 U/ml.
- 108. (Currently Amended) The composition according to claim 105, wherein the concentration of GM-CSF in the culture medium is about 50-1000 400-800 U/ml.
- 109. (Previously Presented) The composition according to claim 101, wherein the cell aggregates are blood derived and are subcultured from about one to five times.

- 110. (Currently Amended) The composition according to claim 101, wherein the cell aggregates are subcultured one to five times every 3 to 30 days.
- 111. (Currently Amended) The composition according to claim 101, wherein the elaim culture medium is selected from the group consisting of RPMI 1640, DMEM and α -MEM, and wherein the culture medium is supplemented with serum.
- 112. (Previously Presented) The composition according to claim 104, wherein the tissue source is treated to remove red blood cells.
- 113. (Previously Presented) The composition according to claim 105, wherein the tissue source is treated to remove B cells and granulocytes.
 - 114. (Canceled)
- 115. (Previously Presented) The composition according to claim 101, wherein said fragmented antigen is presented by the dendritic cells on MHC class I or MHC class II molecules.
- 116. (Previously Presented) A pharmaceutical composition comprising a therapeutically effective amount of the composition according to claim 101.
- 117. (Previously Presented) The composition according to claim 94, wherein the mycobacterium is a tuberculosis bacteria.
- 118. (Previously Presented) The composition according to claim 101, wherein the dendritic cell precursors are cultured in the presence of antigen for between 1-48 hours.
- 119. (Previously Presented) The composition according to claim 118, wherein the dendritic cell precursors are cultured in the presence of antigen for about 20 hours.
- 120. (Previously Presented) An *in vitro* composition comprising antigen-activated dendritic cells, wherein said antigen-activated dendritic cells are derived from an *in vitro* culture of a population of enriched and expanded proliferating precursor cells which were contacted *in vitro* with antigen in the presence of GM-CSF for a sufficient time for antigen fragmentation and presentation to occur.

App. No. 09/073,596 Reply to Office Action of 26 May 2006 Page 6 of 19

- 121. (Previously Presented) The composition of claim 101, wherein the cell aggregates are serially subcultured one to five times.
 - 122. (Canceled)
- 123. (New) An *in vitro* composition comprising at least 1 x 10⁶ antigen-activated dendritic cells presenting fragmented antigen and derived from an *in vitro* culture of an enriched and expanded population of proliferating dendritic cell precursors by a method comprising:

providing a tissue source from a single donor comprising dendritic cell precursors;

optionally treating the tissue source comprising dendritic cell precursors to increase the proportion of dendritic cell precursors;

culturing the tissue source on a substrate in a culture medium comprising GM-CSF to obtain cell aggregates comprising proliferating dendritic cell precursors; and

subculturing the cell aggregates at least one time to enrich the proportion of dendritic cell precursors;

wherein the dendritic cell precursors are derived from said single donor and wherein the dendritic cell precursors are cultured *in vitro* in the presence of an antigen for a time sufficient to allow the antigen to be fragmented and presented.

- 124. (New) The composition according to claim 123, wherein the tissue source is blood.
- 125. (New) The composition according to claim 123, wherein the tissue source is bone marrow.
- 126. (New) The composition according to claim 123, wherein GM-CSF is present in the culture medium at a concentration of about 1-1000 U/ml.
- 127. (New) The composition according to claim 123, wherein the concentration of GM-CSF in the culture medium is about 30-100 U/ml.
- 128. (New) The composition according to claim 123, wherein the concentration of GM-CSF in the culture medium is about 50-1000 U/ml.

- 129. (New) The composition according to claim 123, wherein the cell aggregates are blood derived and are subcultured from about one to five times.
- 130. (New) The composition according to claim 124, wherein the tissue source is treated to remove red blood cells.
- 131. (New) The composition according to claim 125, wherein the tissue source is treated to remove B cells and granulocytes.
- 132. (New) The composition according to claim 101, wherein said fragmented antigen is presented by the dendritic cells on MHC class I or MHC class II molecules.
- 133. (New) A pharmaceutical composition comprising a therapeutically effective amount of the composition according to claim 123.
- 134. (New) The composition according to claim 123, wherein the antigen is a mycobacterium.
- 135. (New) The composition according to claim 123, wherein the mycobacterium is BCG.
- 136. (New) The composition according to claim 123, wherein the dendritic cell precursors are cultured in the presence of antigen for between 1-48 hours.
- 137. (New) The composition according to claim 136, wherein the dendritic cell precursors are cultured in the presence of antigen for about 20 hours.
- 138. (New) The composition of claim 123, wherein said culture medium further comprises TNF- α .
- 139. (New) The composition of claim 138, wherein said culture medium comprises TNF-α at a concentration of from 5 to 500 U/ml.
- 140. (New) The composition of claim 101, wherein said culture medium further comprises TNF- α .
- 141. (New) The composition of claim 140, wherein said culture medium comprises TNF-α at a concentration of from 5 to 500 U/ml.